

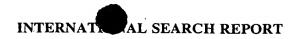
# **PCT**

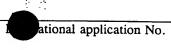
# INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

	icant's ( 50-812	or agent's file reference	FOR FURTHER ACTION		cation of Transmittal of International Search orm PCT/ISA/220) as well as, where applicable, ow.		
International application No. PCT/US03/25878			International filing date (day/month/year) 20 August 2003 (20.08.2003)		(Earliest) Priority Date (day/month/year) 20 August 2002 (20.08.2002)		
Applicant LOCKHEED MARTIN CORPORATION							
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.  This international search report consists of a total of sheets.  It is also accompanied by a copy of each prior art document cited in this report.							
<ol> <li>Basis of the Report</li> <li>a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.</li> </ol>							
the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).  b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:							
	contained in the international application in written form.						
	H	filed together with the international application in computer readable form.  furnished subsequently to this Authority in written form.					
	H	furnished subsequently to this Authority in computer readable form.					
	H	the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the					
	international application as filed has been furnished.						
		the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.					
2.		Certain claims were found	unsearchable (See Box I).	-			
3.	Unity of invention is lacking (See Box II).						
4.	with re	egard to the title, the text is approved as submitted by the applicant.					
			by this Authority to read as follows				
	ш	the text has been established	by this reactionity to react as follows	•			
5.	With r	egard to the abstract,					
J.		the text is approved as subm	itted by the applicant.				
		the text has been established	, according to Rule 38.2(b), by this	Authority search repo	as it appears in Box III. The applicant may, ort, submit comments to this Authority.		
6. The figure of the drawings to be published with the abstract is Figure No. 1							
		as suggested by the applican	•	<del>-</del>	None of the figures		
		because the applicant failed	to suggest a figure.				
		because this figure better characterizes the invention.					
			·				

Form PCT/ISA/210 (first sheet) (July 1998)





PCT/US03/25878

### Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

#### **NEW ABSTRACT**

An antenna-coupled microbolometer multilayer structure (100), and associated method of forming an antenna-coupled microbolometer multilayer structure are disclosed, where the structure includes a dielectric layer (102) of dielectric material having at least one locally doped region (104) doped with a dopant to provide a thermal conductive path from a first side (106) to a second side (108) of the dielectric layer. The structure includes an antenna (110) on the first side of the dielectric layer coupled to the locally doped region; a read-out integrated circuit (ROIC) (112) on the second side of the dielectric layer coupled to the locally doped region; a conductive substrate (114) between the dielectric layer and the ROIC; and an electrical connection between the locally doped region and the ROIC, wherein the ROIC is connected to detect, via the electrical connection, a change in electrical resistivity of the locally doped region due to thermal energy absorbed from the antenna.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/25878

A. CLASSIFICATION OF SUBJECT MATTER IPC(7): H01J 7/24							
US CL : 250/238, 221, 216, 338.4: 343/850; 505/1, 847, 848, 849							
According to International Patent Classification (IPC) or to both national classification and IPC							
B. FIELDS SEARCHED							
Minimum documentation searched (classification system followed by classification symbols) U.S.: 250/238, 221, 216, 338.4: 343/850; 505/1, 847, 848, 849							
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched							
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)							
C. DOCUMENTS CONSIDERED TO BE RELEVANT							
	tegory * Citation of document, with indication, where appropriate, of the relevant passages						
A US 6,329,649 B1 (JACK et al) 11 December 2001 (	6,329,649 B1 (JACK et al) 11 December 2001 (11/12/01) See entired document.						
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Further documents are listed in the continuation of Box C. See patent family annex							
Special categories of cited documents:	"T" later document published after the inter	mational filing date or priority					
"A" document defining the general state of the art which is not considered to be of particular relevance	date and not in conflict with the application principle or theory underlying the investment of the conflict with the application of the conflict with the conflict with the application of the conflict with	ation but cited to understand the ntion					
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be consider						
"L" document which may throw doubts on priority claim(s) or which is cited to- establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the considered to involve an inventive step						
"O" document referring to an oral disclosure, use, exhibition or other means	combined with one or more other such being obvious to a person skilled in the	documents, such combination					
"P" document published prior to the international filing date but later than the	"&" document member of the same patent f	•					
priority date claimed							
Date of the actual completion of the international search	Date of mailing of the international search report						
29 June 2004 (29.06.2004)	15 JUL 20047						
Name and mailing address of the ISA/US	Authorized officer						
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